



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.                                                                                | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.            | CONFIRMATION NO. |
|------------------------------------------------------------------------------------------------|-------------|----------------------|--------------------------------|------------------|
| 09/964,962                                                                                     | 09/27/2001  | Craig Paulsen        | 29757/P-577                    | 2536             |
| 4743                                                                                           | 7590        | 10/07/2003           |                                |                  |
| MARSHALL, GERSTEIN & BORUN LLP<br>6300 SEARS TOWER<br>233 S. WACKER DRIVE<br>CHICAGO, IL 60606 |             |                      | EXAMINER<br>MARKS, CHRISTINA M |                  |
|                                                                                                |             |                      | ART UNIT                       | PAPER NUMBER     |
|                                                                                                |             |                      | 3713                           |                  |

DATE MAILED: 10/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/964,962

Applicant(s)

PAULSEN ET AL.

Examiner

C. Marks

Art Unit

3713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 13-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

Claims 20-22 recites the limitation "the gaming apparatus" in line 1. There is insufficient antecedent basis for this limitation in the claim. The parent claims has a preamble that refers to a slot machine, not that of a gaming apparatus.

### ***Claim Rejections - 35 USC § 112***

The rejection of claims 13-18 for the use of the term about has been hereby withdrawn due to the arguments presented in the amendment filed 28 July 2003.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 13-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It would not be distinctly and definitively understood by one of ordinary skill in the art what is meant by "contacting the outer region at two points separated by an angular displacement of ninety degrees." The means by which the angular displacement along the outer circumferential region is measured or referenced, as well as what is meant by such measurements would not be readily ascertained by one of ordinary skill in the art. The relationship by which the applicant is establishing the limitation would not be able to be understood by one of ordinary skill in the art in that the displacement of the angle is not defined in a manner that distinctly describes the manner and location at which the contact occurs.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 13 and 19, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Griswold et al. (US Patent No. 6,027,115).

Griswold et al. disclose a gaming apparatus in the form of a slot machine comprising a housing (FIG 1, reference 12), a value input device (FIG 1, reference 22 and 24), an input device to allow the player to make a wager (FIG 1, reference 20), a slot machine reel rotatable about an axis having an outer circumferential region (Column 4, lines 53-57). A motor is used to drive the wheels (Column 6, lines 15-16).

The gaming apparatus also includes a flexible display in the form of a reel strip (Column 3, lines 39-42; FIGs 2) that allows the reel strip to be bent from a substantially straight configuration to a curved configuration (FIG 4A and FIG 2).

This curved configuration is capable of contacting the outer circumferential region of the reel at two points (FIG 3A). While the exact angular displacement is not disclosed, it would be obvious to one of ordinary skill in the art that for the strip to function in a gaming reel of a round configuration as disclosed, the displacement would be about or at least ninety degrees between the points. However, such a displacement would be a choice of that of the designer in order to properly adhere the reel strip to the reel and it would be obvious to adapt. Likewise, one of ordinary skill in the art would understand that for the reel to serve the purpose as disclosed, it should contact the wheel at a displacement, such as ninety degrees, to properly support both sides of the strip with the least amount of contacts. One of ordinary skill in the art would be

Art Unit: 3713

motivated to use this displacement in order to provide the most contact support with the least amount of contact points, which would be understood of a ninety degree displacement to an ordinary artisan.

The display is adapted to display indicia to the player (FIG 4A). The display of the indicia is controlled by the processor (Column 9, lines 38-42).

The gaming apparatus also includes a slip ring drum rotatable about the axis of the reel where the slip ring drum includes a plurality of electrical conductors including electrically conductive brushes (Column 6, lines 13-23). The game apparatus also includes a processor that controls both the light source elements and the gaming outcome (Column 9, lines 24-26). It is notoriously well known in the art that in a gaming machine the processor has a memory, is in control of detecting deposits and wagers, determines the indicia to be displayed, controls the motor to spin and stop the wheels, and to determine a value associated with an outcome and hence to pay a player.

Claims 14, 17, 18, 20, 22-24 and 26, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Griswold et al. (US Patent No. 6,027,115) in view of Acres et al. (US Patent No. 6,008,784) in view of Universal Display: FOLED Technology.

What Griswold et al. disclose has been discussed above and is incorporated herein. Griswold et al. do not disclose the flexible display is programmed to dynamically chance the indicia; the flexible display is an LED.

Acres et al. disclose a flexible display that is adapted for use in a casino environment wherein the display includes a plurality of LEDs arranged to form a face around that which is

Art Unit: 3713

curved about a horizontal axis (Column 1, lines 43-47) in the form of a mechanical odometer (Column 2, lines 27-29) to display numerals in different colors (Column 2, lines 40-44). A display drive circuit is coupled to the elements to display a visual image on the face (Column 1, lines 46-48). This display driver circuit is the controller used to cause the indicia to be displayed. The lights are selectively illuminated to form a visual image to display a series of numerals (Column 2, lines 25-35) thus the display can dynamically change. Acres et al. disclose that the use of such a flexible, curved, and dynamic display is advantageous in that it can attract the attention of customers (Column 1, lines 28-30). The device of Acres et al. includes a number of LEDs in a flexible substrate to be used as light. It would be obvious to the system of Acres et al. that that which is to be displayed is stored in memory. One of ordinary skill in the art would understand this would be done to allow the display driver to access that which needs to be displayed.

Universal Display Corporation: FOLED Technology discloses that it is advantageous to substitute the use of normal LEDs with the FOLED technology. Motivations for doing so include the flexibility of FOLED, the ultra-lightweight, thin-form, as well as the durability and cost-effective processing.

The usage of one flexible display over another would be an obvious design choice of one of ordinary skill in the art based upon the desired functionality for the machine as defined by the designer. One of ordinary skill in the art would thus find it obvious to substitute the FOLED technology over that disclosed. Therefore, it would have been obvious to one of ordinary skill in the art to incorporate the dynamic FOLED format into the flexible display as disclosed by Acres et al. One of ordinary skill in the art would be motivated to make this design choice in order to

Art Unit: 3713

provide a more efficient, flexible, durable and cost effective means to display information. One would be motivated to incorporate FOLED as cost would be reduced as FOLED is less breakable, more impact resistance and more durable as well as more cost-effective to produce. Moreover, one would be motivated to incorporate the FOLED and Acres et al. into the apparatus of Griswold et al. Both are drawn to a flexible display based upon a curved face around a horizontal axis. One would be motivated to make this incorporation in order to attract a greater number of consumers to use the machine, as more attention would be drawn by the dynamically changing display as taught by Acres et al. and thus more revenue would be drawn for the casino.

Claims 15, 16, 21 and 25, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Griswold et al. (US Patent No. 6,027,115) in view of Acres et al. (US Patent No. 6,008,784) in view of Universal Display: FOLED Technology further in view of Business Week 2000: The Tube.

What Griswold et al., Acres et al., Universal Display, disclose, teach, and/or suggest has been discussed above and is incorporated herein.

Griswold et al., Acres et al., and Universal Display do not disclose the use of an LCD as the means for flexible display.

However, the Tube, as disclosed by Business Week is a flexible form LCD that can be bent and used in both a substantially straight and curved configuration and allows dynamically changing indicia to be displayed.

The usage of one flexible display over another would be an obvious design choice of one of ordinary skill in the art based upon the desired functionality for the machine as defined by the

Art Unit: 3713

designer. One of ordinary skill in the art would thus find it obvious to substitute the flexible LED technology over that disclosed by FOLED. The use of a flexible LCD over a FOLED would be merely a design choice as both present advantages to their use. A possible motivation to one of ordinary skill in the art to use a flexible LCD over a FOLED is that LCD is known to consume very little power and thus would save the casino money in the electricity required to run the machine. Hence, the use of a flexible LCD over a FOLED would have been obvious to one of ordinary skill in the art.

### ***Response to Arguments***

In response to the Applicants argument regarding the indefinite rejection, the Examiner has considered that which was presented by the Applicant and has thereby withdrawn the rejection.

In response to the Applicant's arguments about the contact points of the strip, see pages 8-9, filed 28 July 2003, with respect to the rejection(s) of claim(s) 13 as being anticipated by Griswold et al. under 35 U.S.C. 102(b) have been fully considered and are persuasive.

Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of a different interpretation and explanation of the teachings of the previously applied reference discussed above. About elasticity, the Examiner notes that elasticity is also defined as capable of change or a variety of circumstances, thus the reel strip is elastic in that it is changed from a straight to a curved configuration when placed about the reel.



In response to the Applicant's arguments that Griswold et al. does not disclose a flexible reel strip, the Examiner respectfully disagrees. The Applicant states that just because the reel may include a flexible substrate does not mean that the reel itself is flexible. The Examiner agrees that the flexible substrate is only one of the components of the reel, but notes that all of the elements are formed on the flexible substrate and one of ordinary skill in the art would understand that the reel is thus flexible as it is bent around the drum for use. Further, the figures disclosed by Griswold et al. support this fact by showing the reel strip flexibly wrapped around the reel of the gaming apparatus (FIG 2). One of ordinary skill in the art would understand that the reel strip would not be able to be formed around the drum if it were not flexible.

In response to the Applicants arguments regarding the reasons for combination of reference, the Examiner maintains the motivations. The motivation of FOLED as a flexible material would indeed suggest to one of ordinary skill in the art to use such a display in Griswold and Acres. Because Griswold and Acres already disclose flexible displays, one of ordinary skill in the art would merely find it a design choice to substitute other types of flexible displays as the type of actual display used would be a design choice to a system already embodied to support flexible displays.

In response to the arguments about the motivation of weight reduction, the Examiner also maintains the motivation. While Acres and Griswold only disclose slot machines, they most certainly could be embodied in tabletop slot machines, as the structure embodying them is not that which is important to the disclosure. Therefore in tabletop machines, weight reduction would be an issue as such machines typically must be carried and set up by the owner and thus reducing any weight would be beneficial.

In response to arguments about the motivation of durability, the Examiner also maintains the motivation. While the Examiner agrees that durability is not a first round consideration be it that slot machines are enclosed in glass, the Examiner maintains that a more durable material would be desirable nonetheless. Even though only a small amount of wear and tear may be saved by using the more durable FOLED, if one considers the size of most casinos and the number of gaming machines in each, it would come to represent a significant consideration in that even saving the wear and tear by a small amount could translate into a substantial amount of savings for the operator.

In response to arguments about the motivation of cost-effectiveness, the Examiner also maintains the motivation. While the Applicant argues that the consumer market affect would not be important to casino slot machines and that the project cost advantages for products other than slot machines does not provide a sufficient suggestion, the Examiner respectfully disagrees. The Examiner asserts that it is known in casino management that cost is important to a casino because the lower the overhead, the higher the profits. Thus sufficient motivation would be provided to use FOLED as opposed to most flat panel displays in order to reduce cost as disclosed by FOLED.

In response to arguments about the motivation of power consumption, the Examiner also maintains the motivation. While the Applicant argues that the casino would not be concerned with a low voltage LCD to support power consumption, the Examiner disagrees. Power consumption would again, as disclosed above, represent overhead to the casino and any reduction in such overhead would be beneficial and thus desirable. One of ordinary skill in the

Art Unit: 3713

art would understand the advantages and benefits of drawing a lesser amount of power and thus would be motivated to use provisions which allow such.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Marks whose telephone number is (703)-305-7497. The examiner can normally be reached on Monday - Thursday (7:30AM - 5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teresa J Walberg can be reached on (703)-308-1327. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-1148.

*cmm*

cmm  
October 6, 2003

*T. Walberg*  
Teresa Walberg  
Supervisory Patent Examiner  
Group 3700